

REMARKS

Initially, Applicants thank the Examiner for the courtesies extended during the recent in-person interview. The claim amendments and arguments submitted in this paper are consistent with the amendments and arguments presented during the course of the interview. Accordingly, entry of this amendment and reconsideration of the pending claims is respectfully requested.

Claims 1-6, 8-9, 11-14, 16 and 26-32 were rejected under 35 U.S.C. § 103(a) as being unpatentable in view of Abdelaziz et al. (U.S. Pat. No. 7,197,565), hereinafter *Abdelaziz*, and further in view of Chen et al. (U.S. Pat. No. 7,325,072), hereinafter *Chen*.¹

By this amendment, claims 1-6, 9, 11-14 and 26-32 have been amended.² No claims have been added or cancelled. Accordingly, claims 1-6, 8-9, 11-14, 16 and 26-32 are pending, of which claims 1 and 26 are the only independent claims at issue.

As discussed during the interview, the present invention is generally directed to determining the presence of a UPnP device in a computing network. For example, claim 1 defines a transmit component that transmits a multicast-type M-SEARCH verb that is sent as a unicast message to a specific UPnP device within the network such that the M-SEARCH request is made to function as an Internet Control Message Protocol (ICMP) ping operation, the UPnP device having a timeout period and a plurality of functions capable of independent presence indication associated therewith, the multicast-type M-SEARCH verb being directed to a first set of one or more of the plurality of functions, the multicast-type M-SEARCH verb being of a type that is normally sent as a multicast datagram to discover multiple UPnP devices.

Next, claim 1 defines a presence component that monitors a response to the unicast message from the UPnP device, the response comprising a directed search response even though the UPnP device is configured to treat the M-SEARCH verb as if it was a broadcast M-SEARCH request broadcast to all UPnP devices in the network, and if a response is not received, the UPnP device is presumed to be off-line with respect to the first set of one or more of the plurality of functions, wherein the UPnP device is presumed to be on-line with respect to a second set of one or more of the plurality of functions, and wherein the response is similar to that for a multicast

¹ Although the prior art status of the cited art is not being challenged at this time, Applicant reserves the right to challenge the prior art status at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

² Support for the amendments to the claims is found throughout the specification and previously presented claims, including but not limited to p. 2:16-30 and p. 15:13-p.16:3.

message to the UPnP device. Lastly, claim 1 defines a processor configured to execute the transmit and presence components.

Applicants respectfully submit that the cited art of record does not anticipate or otherwise render the amended claims unpatentable for at least the reason that the cited art does not disclose, suggest, or enable each and every element of these claims.

35 U.S.C. 102 and 103 Rejections

As discussed during the interview, *Abdelaziz* describes a system and method of using a pipe advertisement for a peer-to-peer network entity in peer-to-peer presence detection (Title). *Abdelaziz* describes using asynchronous pipes to enable developers to build large-scale interconnected distributed services and applications (Col. 28:13-15). The pipes are generic in nature and support binary code, data strings, Java objects and other types of code (Col. 28:15-18). "Any number of unicast and multicast protocols and algorithms and combinations thereof, may be used" in the pipes (Col. 28:19-22). Within *Abdelaziz*'s peer network, a peer's capabilities and status may be determined using a peer information protocol. Using this protocol, a peer can send a ping message to see if another peer is alive and also determine that peer's properties (Col. 82:62-Col. 83:5). *Chen* was cited to show unicasting multicast data (Col. 3:38-42).

However, while *Abdelaziz* and *Chen* describe peer-to-peer node discovery and unicasting multicast data, respectively, neither reference teaches or suggests transmitting a UPnP M-SEARCH message as a unicast message to a specific UPnP device where the M-SEARCH request acts as a ICMP ping operation. Moreover, none of the cited art teaches or suggests receiving a unicast message response from a UPnP device that is a directed search response even though the UPnP device is configured to treat the M-SEARCH verb as if it was a broadcast M-SEARCH request broadcast to all UPnP devices in the network. None of the cited art even mentions UPnP devices or M-SEARCH verbs, much less transmitting M-SEARCH verbs as directed unicast messages.

Accordingly, none of the cited art, alone or in combination, teaches or suggests "a transmit component that transmits a multicast-type M-SEARCH verb that is sent as a unicast message to a specific UPnP device within the network such that the M-SEARCH request is made to function as an Internet Control Message Protocol (ICMP) ping operation, the UPnP device having a timeout period and a plurality of functions capable of independent presence indication associated therewith, the multicast-type M-SEARCH verb being directed to a first set of one or

more of the plurality of functions, the multicast-type M-SEARCH verb being of a type that is normally sent as a multicast datagram to discover multiple UPnP devices," as recited in combination with the other limitations of claim 1.

Moreover, none of the cited art, alone or in combination, teaches or suggests "a presence component that monitors a response to the unicast message from the UPnP device, the response comprising a directed search response even though the UPnP device is configured to treat the M-SEARCH verb as if it was a broadcast M-SEARCH request broadcast to all UPnP devices in the network, and if a response is not received, the UPnP device is presumed to be off-line with respect to the first set of one or more of the plurality of functions, wherein the UPnP device is presumed to be on-line with respect to a second set of one or more of the plurality of functions, and wherein the response is similar to that for a multicast message to the object," as recited in combination with the other limitations of claim 1.

Thus, at least for the reasons outlined above, claim 1 patentably defines over the art of record. At least for any of these reasons, claim 26 also patentably defines over the art of record. Since each of the dependent claims depend from one of claims 1 and 26, each of the dependent claims also patentably define over the art of record for at least either of the same reasons.

In view of the foregoing, Applicant respectfully submits that the other rejections to the claims are now moot and do not, therefore, need to be addressed individually at this time. It will be appreciated, however, that this should not be construed as Applicant acquiescing to any of the purported teachings or assertions made in the last action regarding the cited art or the pending application, including any official notice. Instead, Applicant reserves the right to challenge any of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, to the extent that the Examiner has relied on any Official Notice, explicitly or implicitly, Applicant specifically requests that the Examiner provide references supporting the teachings officially noticed, as well as the required motivation or suggestion to combine the relied upon notice with the other art of record.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney at (801) 533-9800.

Dated this 17th day of July, 2009.

Respectfully submitted,

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